



# CINT2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

Sun Microsystems  
Sun Blade 2500 (1.6GHz)

SPECint\_rate2000 = 9.80  
SPECint\_rate\_base2000 = 8.57

SPEC license #: 6 Tested by: Sun Microsystems, Santa Clara Test date: Dec-2004 Hardware Avail: Feb-2005 Software Avail: Jan-2005

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
164.gzip	1	198	8.21	1	171	9.51
175.vpr	1	221	7.33	1	216	7.52
176.gcc	1	150	8.53	1	116	11.0
181.mcf	1	498	4.19	1	286	7.30
186.crafty	1	114	10.1	1	95.9	12.1
197.parser	1	277	7.53	1	246	8.50
252.eon	1	126	12.0	1	126	12.0
253.perlbnk	1	223	9.36	1	204	10.2
254.gap	1	170	7.51	1	154	8.31
255.vortex	1	137	16.1	1	130	16.9
256.bzip2	1	228	7.64	1	221	7.89
300.twolf	1	377	9.24	1	355	9.79

### Hardware

CPU: UltraSPARC IIIi  
 CPU MHz: 1600  
 FPU: Integrated  
 CPU(s) enabled: 1 core, 1 chip, 1 core/chip  
 CPU(s) orderable: 1,2  
 Parallel: No  
 Primary Cache: 32KBI+64KBD on chip  
 Secondary Cache: 1MB(I+D) off chip  
 L3 Cache: None  
 Other Cache: None  
 Memory: 4GB (4x1GB DIMM)  
 Disk Subsystem: 1 x 146GB 10K RPM SCSI  
 Other Hardware: None

### Software

Operating System: Solaris 10  
 Compiler: Sun Studio 9  
 File System: ufs  
 System State: Multi-User

## Notes/Tuning Information

Compiler invocation:

C: cc  
CXX: CC

Integer base flags:

-fast -xipo=2 with ONESTEP=yes and feedback

Integer peak flags:

ONESTEP=yes and feedback for all benchmarks

164.gzip: -xO4 -xbuiltin=%all -xtarget=native -xalias\_level=std  
 -xipo=2 -Wc,-Qeps:enabled=1,-Qeps:rp\_filtering\_margin=30, -Qeps:do\_spec\_load=1  
 175.vpr: -fast -xalias\_level=std -xipo=2  
 -Wc,-Qeps:enabled=1,-Qeps:rp\_filtering\_margin=100,-Qeps:do\_spec\_load=1 -lmopt -lm  
 176.gcc: -fast -xipo=2 -l12amm  
 181.mcf: -fast -xipo=2 -xprefetch\_level=3 -Wc,-Qeps:enabled=1  
 -W2,-Apf:l1list=3:noinnerl1list  
 186.crafty: -fast -xinline= -xipo=2 -xalias\_level=strong -W2,-Ashort\_ldst  
 Feedback adds -xlinkopt in PASS2  
 197.parser: -fast -xipo=2 -xalias\_level=strong



# CINT2000 Result

Copyright ©1999-2004, Standard Performance Evaluation Corporation

Sun Microsystems  
Sun Blade 2500 (1.6GHz)

SPECint\_rate2000 = 9.80  
SPECint\_rate\_base2000 = 8.57

SPEC license #: 6 | Tested by: Sun Microsystems, Santa Clara | Test date: Dec-2004 | Hardware Avail: Feb-2005 | Software Avail: Jan-2005

## Notes/Tuning Information (Continued)

```

-Wc,-Qgsched-T6,-Qipa:valueprediction
252.eon: basepeak=yes
253.perlbmk: -xO5 -xtarget=native -xmalign=4s -xipo -Wc,-Qeps:enabled=1
-Qeps:ws=8, -xalias_level=std -xsafe=mem -Wc,-Qiselect-funcalign=32,
-Qicache-chbab=1 -Wc,-Qiselect-sw_pf_tbl_th=20,-Qeps:do_spec_load=1 -xprefetch=no
254.gap: -fast -xipo=2 -xalias_level=strong -xvector
-xprefetch_level=3 -W2,-Abcopy
255.vortex: -fast -xrestrict -xipo=2
-W2,-crit,-Ainline:recursion=1:cs=500:irs=6000
-Wc,-Qeps:enabled=1,-Qdepgraph-early_cross_call=1,
-Qiselect-funcalign=32,-Qpeep-Sh0 -ll2amm
256.bzip2: -fast -xipo -xalias_level=strong -xrestrict
-Wc,-Qeps:enabled=1 -xsafe=mem -Qeps:rp_filtering_margin=99
300.twolf: -fast -xalias_level=strong -xsafe=mem -xipo=2
-xprefetch=no%auto -Wc,-Qms_pipe+intdivusefp

```

Feedback is done as follows, unless otherwise noted:

```

fdo_pre0: rm -rf ./feedback.profile ./SunWS_cache
PASS1: -xprofile=collect:./feedback
PASS2: -xprofile=use:./feedback

```

Portability:

```

176.gcc: -Dalloca=__builtin_alloca -DHOST_WORDS_BIG_ENDIAN
186.crafty: -DSUN
252.eon: -library=iostream
srcalt = fmax_errno
253.perlbmk: -DSPEC_CPU2000_SOLARIS
254.gap: -DSYS_IS_USG -DSYS_HAS_TIME_PROTO -DSYS_HAS_SIGNAL_PROTO
-DSYS_HAS_CALLOC_PROTO -DSYS_HAS_IOCTL_PROTO

```

Shell Environments:

```

Stack size set to unlimited via "ulimit -s unlimited"
MPSSHEAP=512K
MPSSSTACK=512K
LD_PRELOAD=mpss.so.1

```

Kernel Parameters (/etc/system):

```

autoup=900
tune_t_fsflushr=1

```

Only one CPU in the system